

Claim 6 (amended):

The transformant according to claim 5, wherein said transformant is pPIC9DP-hMK/SMD1168, said MK family protein is MK protein [vector is the one according to claim 3], and said methylotrophic yeast is strain SMD1168.

Claim 7 (amended):

The transformant according to claim 5, wherein said transformant is pPIC9-hPTN/GS115, said MK family protein is PTN protein [vector is the one according to claim 4], and said methylotrophic yeast is strain GS115.

Claim 8 (amended):

A method for producing an intact MK family protein, said method comprising culturing [the transformant according to any one of claims 5 to 7] a transformant comprising methylotrophic yeast transformed with a vector for secretory expression of an intact MK family protein, said vector comprising a gene encoding a mature MK family protein ligated to a signal sequence of  $\alpha 1$  factor derived from *Saccharomyces cerevisiae* and recovering secretory expression products.

Claim 9 (amended):

The method according to claim 8, said method comprising:

(a) culturing [the transformant according to claim 6] a transformant comprising methylotrophic yeast transformed with a vector for secretory expression of an intact MK family protein, said vector comprising a gene encoding a mature MK family protein ligated to a signal sequence of  $\alpha 1$  factor derived from *Saccharomyces cerevisiae*, wherein said transformant is pPIC9DP-hMK/SMD1168, said MK family protein is MK protein, and said methylotrophic yeast is strain SMD1168.

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(A-2-1)
- (b) inducing the expression of MK protein under the conditions of 20°C and pH 3 after [the] proliferation at pH 4, and
- (c) recovering secretory expression products.
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Please add the following new claims:

- A-2
- 1           10. The transformant, according to claim 5, wherein said vector comprises
- 2           (a) a promoter sequence of a methanol-inducible alcohol oxidase gene (AOX1)
- 3           derived from *Pichia pastoris*,
- 4           (b) a signal sequence of  $\alpha 1$  factor derived from *Saccharomyces cerevisiae*,
- 5           (c) a gene encoding a mature MK family protein, wherein said gene is ligated to (b),
- 6           (d) a transcription termination sequence of a methanol-inducible alcohol oxidase gene
- 7           (AOX1) derived from *Pichia pastoris*,
- 8           (e) a selection marker gene functioning in *Escherichia coli* and methylotrophic yeast,
- 9           (f) a replication origin functioning in *Escherichia coli*, and
- 10          (g) 5' AOX1 and 3' AOX1 for the site-specific homologous recombination to a
- 11          methylotrophic yeast chromosomal DNA.

- 1           11. The transformant, according to claim 5, wherein said MK family protein is MK
- 2           protein.

- 1           12. The transformant, according to claim 5, wherein said MK family protein is PTN
- 2           protein.

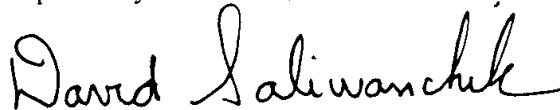
1 13. The method, according to claim 8, wherein said transformant is  
2 pPIC9DP-hMK/SMD1168, said MK family protein is MK protein, and said methylotrophic  
3 yeast is strain SMD1168.

1 14. The method, according to claim 8, wherein said transformant is  
2 pPIC9-hPTN/GS115, said MK family protein is PTN protein, and said methylotrophic yeast  
3 is strain GS115.

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The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 or  
1.17 as required by this paper to Deposit Account 19-0065.

Respectfully submitted,



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